REMARKS

Claims 1-85 are currently pending. Claims 1-8, 62-65, and 74-77 stand rejected, claims 9-11, 66-68, and 78-80 stand objected to, and claims 12-61, 69-73, and 81-85 are allowed. Applicant reserves the right to pursue original and other claims in this and any other application.

Claims 1-8, 62-65, and 74-77 stand rejected under 35 U.S.C. 102(b) as being anticipated by Takata (U.S. Pat. No. 5,777,921)("Takata").

Takata discloses "A non-volatile semiconductor memory device includes a plurality of memory cells each including a capacitor as a memory element, the capacitor sandwiching a ferroelectric member. The non-volatile semiconductor memory device further includes: a first counter for counting the number of write accesses and read accesses for writing or reading first logic data to each one of the plurality of memory cells; a second counter for counting the number of write accesses and read accesses for writing or reading second logic data to the memory cell; and a refresh control circuit for performing, when either a first value counted by the first counter or a second value counted by the second counter exceeds a predetermined value, a refresh operation by applying electric fields for causing a polarization state of the ferroelectric member of the capacitor to make a complete round on a hysteresis curve of the ferroelectric member in a corresponding one of the plurality of memory cells for which the first or second value counted by the first counter or the second counter has exceeded the predetermined value.." (Takata, Abstract)

Claim 1 recites, *inter alia*, a memory refresh circuit comprising "a control circuit for conducting a memory refresh operation, for monitoring a memory device, and for indicating when said refresh operation is complete based on said monitoring of said memory device."

Takata fails to disclose or suggest "for indicating when said refresh operation is complete based on said monitoring of said memory device." To the contrary, the element of the invention of Takata identified by the Examiner (at Takata, col. 9, lines 18-23 and lines 14-27) merely describes the refresh operation (i.e., "Herein, the refresh operation includes the application of a positive electric field and a negative electric field for causing the polarization

state of the ferroelectric film of the capacitor CS of the target memory cell MC to transit around the hysteresis curve by at least one complete round." ; "Thus, the refresh control circuit 10 is capable of separately refreshing individual memory cells MC of the memory cell array 1, the memory cell MC being selected in accordance with the above-mentioned row address and a column address for the refresh operation. Herein, the refresh operation includes the application of a positive electric field and a negative electric field for causing the polarization state of the ferroelectric film of the capacitor CS of the target memory cell MC to transit around the hysteresis curve by at least one complete round. As a result of the refresh operation, the spontaneous polarization of the ferroelectric film, which has deteriorated due to the application of only a positive or negative electric field being applied to the capacitor CS, can be restored.") As such, the invention of Takata is different from the claimed invention. Therefore, the rejection of claim 1 should be withdrawn.

Claims 2-8 depend, directly or indirectly, from claim1 and are allowable for at least the reason noted above with respect to claim 1.

Claims 62 and 74 have a similar limitation as claim 1 and are allowable for at least the reason noted above with respect to claim 1.

Claims 63-65 and 75-77 depend, directly or indirectly, from claim 62 and 74, respectively, and are allowable for at least the reason noted above with respect to claim 1.

Claims 9-11, 66-68, and 78-80 stand objected to as being dependant upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant respectfully submits that the base claims are allowable, thus claims 9-11, 66-68, and 78-80 are allowable.

Applicant appreciates the indication of claims 12-61, 69-73, and 81-85 being allowed.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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